

**Unpacking the relationship between knowledge-sharing efforts and creativity: The
critical roles of relationship quality and perceived organizational politics**

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Abstract

This thesis contributes to creativity research by investigating the link between employees' knowledge-sharing efforts and creativity and how this link is moderated by two aspects of relationship quality (informality and emotional openness) and the belief that organizational decision making is marked by destructive political games. It proposes that the usefulness of knowledge-sharing efforts for stimulating creativity is higher when employees maintain informal relationships with their colleagues and feel comfortable expressing a diverse range of emotions with them. In addition, extensive knowledge-sharing efforts are less likely to enhance creativity when employees believe that organizational decision making is guided by destructive political games. Finally, the harmful effect of perceived organizational politics on the knowledge-sharing efforts–creativity relationship is mitigated when employees can rely on high levels of relationship quality. This research holds useful implications for organizations regarding the circumstances in which the application of employee knowledge to the generation of novel solutions to problem situations is most effective.

Keywords: creativity; knowledge sharing; relationship quality; organizational politics

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1. Introduction

A significant way employees can contribute to their organization's competitive advantage is through their creative behaviours (Chen & Kaufmann, 2008; Halbesleben, Novicevic, Harvey, & Buckley, 2003; Tierney, Farmer, & Graen, 1999), which captures their propensity to develop novel solutions to organizational problems and improve the current organizational situation (Amabile, 1988; Oldham & Cummings, 1996; Shalley & Gilson, 2004). Creative behaviours are beneficial not only to the organization but also to employees themselves, in that these behaviours can spur their individual learning (Parboteeah, Hoegl, & Muethel, 2015) and satisfaction (Mishra & Shukla, 2012). Despite the positive outcomes of creativity, creating new ideas for organizational improvement can also be challenging for employees, because others may view these activities as disruptive and undermining current privileges (LePine & Van Dyne, 1998; Sutton & Hargadon, 1996; Zhou & George, 2001). For example, when employees suggest novel solutions to organizational problems, other organizational members may demonstrate strong resistance if they feel threatened by the associated changes (Buchanan & Badham, 1999; Hirschman, 1970; Yuan & Woodman, 2010).

An important enabler of creativity, despite these challenges, might be the extent to which employees engage in extensive knowledge-sharing efforts with their peers (Grant, 1996; Tang, Shang, Naumann, & Zedtwitz, 2014). Previous research suggests that intraorganizational knowledge exchanges contribute positively to creative endeavors (Chiang, Hsu, & Shih, 2015; Gong, Kim, Lee, & Zhu, 2013; Schepers & Van den Berg, 2007), yet this positive role is not automatic to the extent that knowledge-sharing efforts capture the mere quantity, not the quality, of the knowledge that is exchanged (De Clercq,

Dimov, & Belausteguigoitia, 2014). Furthermore, relatively little research has investigated the conditions in which employees' extensive knowledge-sharing efforts are most useful for spurring their creativity (Gong et al., 2013; Shalley, Zhou, & Oldham, 2004; Zhou & Shalley, 2003). This oversight is important, because it prevents organizations from assessing *when* the allocation of employees' knowledge bases to new idea generation has the greatest value. The key objective of this thesis therefore is to investigate the circumstances in which employees' knowledge-sharing efforts are most likely to enhance the generation of original solutions to organizational problems.

To develop arguments about the contingent nature of the relationship between employee knowledge-sharing efforts and creativity, I draw from research on social relationship building (e.g., Nahapiet & Ghoshal, 1998; Payne, Moore, Griffis, & Autry, 2011; Stephens, Heaphy, Carmeli, Spreitzer, & Dutton, 2013) and organizational politics (e.g., Chang, Rosen, & Levy, 2009; Crawford, LePine, & Rich, 2010; Kacmar & Ferris, 1991). Because employees' knowledge-sharing efforts do not operate in isolation but rather are embedded in their surrounding organizational context (De Clercq, Dimov, & Thongpapanl, 2013), the nature of this context should play a significant role in determining how relevant knowledge can be unlocked from its holders and combined to generate novel solutions to organizational problems. Concerns about dysfunctional relationship dynamics (Leana & Van Buren, 1999) or unfair organizational decision making (Kim & Mauborgne, 1998), for example, can significantly undermine the usefulness of employees' knowledge-sharing efforts. Even though previous studies have investigated the role of knowledge exchange in the development of creative outcomes (Chiang et al., 2015; Gong et al., 2013), it is necessary to better understand how

employees' creative behaviours are influenced by the *interplay* of their knowledge-sharing efforts and the organizational context in which these efforts are undertaken.

I address this issue by considering the moderating roles of two critical contextual factors: (1) the quality of the relationships that employees have with their organizational peers and (2) their beliefs pertaining to whether organizational decision making is marked by destructive political games. First, previous research on the role of intrafirm social relationships in the generation of creative or innovative outcomes has focused on the importance of social capital, or “the sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or social unit” (Nahapiet & Ghoshal, 1998, p. 243). I focus on the role of two resources that are embedded in peer relationships: relationship informality and relationship emotional openness. Relationship informality captures the extent to which employees maintain close social relationships with one another and know one another on a personal level (De Clercq, Thongpapanl, & Dimov, 2011). Relationship emotional openness—a dimension of relationship quality that has not explicitly been investigated in previous social capital research—reflects the extent to which employees can freely and fully express their emotions, both positive and negative, in their interactions with colleagues (Stephens et al., 2013). I argue that employees' knowledge-sharing efforts are more likely to turn into creative outcomes when such efforts are combined with high levels of relationship quality.

Second, perceived organizational politics captures employees' belief that organizational decision making is driven by self-serving behaviours, such that decisions are primarily guided by personal interests instead of the collective good (Kacmar &

Ferris, 1991). Previous research indicates that when employees believe that organizational decision making is politically motivated, they become concerned about their ability to meet their job requirements and exhibit a lower propensity to engage in positive work behaviours (Cavanaugh, Boswell, Roehling, & Boudreau, 2000; Crawford, LePine, & Rich, 2010). I argue that employees' perceptions of destructive political games in their organization diminish the extent to which their knowledge-sharing efforts contribute to creativity.

In short, this thesis adds to creativity research by investigating the link between employees' knowledge-sharing efforts and creativity, with a focus on some of the critical contextual contingencies that underlie this relationship. Previous research has tended to focus on the direct effects of contextual factors on employees' knowledge-sharing activities (Chen & Huang, 2007; Henttonen, Janhonen, & Johanson, 2013; MacCurtain, Flood, Ramamoorthy, West, & Dawson, 2010) or creative behaviours (Chen, Chang, & Hung, 2008; Perry-Smith, 2006; Si & Wei, 2012), leaving unanswered the question of how the interplay of knowledge-sharing efforts and organizational context affects creativity. The proposed moderators (relationship informality, relationship emotional openness, and perceived organizational politics) present a parsimonious yet comprehensive picture of how employees' contextual embeddedness influences their propensity to leverage their collective knowledge bases into creative behaviours. Moreover, by considering relationship emotional openness, in addition to relationship informality, this research explores the underinvestigated role of emotion expression in the development of high-quality relationships (Stephens et al., 2013). The inclusion of perceived organizational politics underscores the notion of employees' beliefs that their

personal knowledge might be misused by others represent critical predictors of the likelihood that their knowledge-sharing efforts effectively contribute to creative outcomes (Kim & Mauborgne, 1998).

I also contribute to the understanding of how knowledge-sharing efforts can contribute to positive work behaviours by investigating how two different aspects of the work context—the quality of peer relationships and the nature of organizational decision making—*simultaneously* inform the value of these efforts. Thus, I acknowledge the interdependent roles of relationship quality and organizational politics in terms of how they influence the contributions of knowledge-sharing efforts to creative outcomes, an approach that has received little attention in previous creativity research (Gong et al., 2013; Shalley et al., 2004). I postulate that the harmful effect of perceived organizational politics on the knowledge-sharing efforts–creativity relationship will be weaker to the extent that employees can rely on high-quality peer relationships. Overall, the findings of this research should inform organizations about the circumstances in which employees can most productively apply their relevant experiences and skills to activities that improve the current organizational situation.

The empirical setting of this study is a large organization that operates in the healthcare sector. Previous research has acknowledged the importance, for healthcare organizations, of spurring internal knowledge sharing in their ranks to stimulate greater creativity (Herzlinger, 2006; Kessel, Kratzer, & Schultz, 2012; Nembhard & Edmondson, 2006), especially due to the rapid changes in medical knowledge, increasing specialization of healthcare professionals, and need for more customized services (Alshallah, 2003; Borrill et al., 2000; Kessel et al., 2012; Nembhard & Edmondson,

2006). Yet the development of effective knowledge-sharing routines is often challenging in such organizations because of rigid organizational structures (Adelman, 2012; Ramanujam & Rousseau, 2006), status differences among different members (including doctors, nurses, and administrative staff), and the associated tendency to “talk past” one another (Edmondson, 2003; Nembhard & Edmondson, 2006). Furthermore, high-quality relationship building is often hampered in healthcare organizations because of the different goals and cultures that exist among different members (Ramanujam & Rousseau, 2006) and the heavy reliance on temporary staff (Rousseau & Libuser, 1997). Finally, organizational politics tend to be prominent in healthcare organizations because of strong power differentials among different organizational members (Currie, Finn, & Martin, 2007) and the fear among individuals in lower positions of the medical hierarchy that their ideas will be disapproved or used against them (Nembhard, & Edmondson, 2006). Overall, the healthcare setting provides a relevant context in which to investigate the instrumental role of knowledge-sharing efforts in stimulating employee creativity and how this process is influenced by social relationship building and organizational politics.

2. Theoretical background

In this section, I elaborate on the conceptualization of creativity and its outcomes, discuss various drivers of creative behaviours, and introduce the proposed conceptual framework.

2.1. Creativity and its outcomes

Researchers have used different conceptualizations of creativity, viewing it both as an individual characteristic and a process that generates novel ideas (Amabile, 1988; Oldham & Cummings, 1996). For example, Jones (1972, p. 7) defines creativity as a

“combination of flexibility, originality and sensitivity to ideas which enable(s) the thinker to break away from the usual sequence of thought, into different and productive sequences, the result of which gives satisfaction to himself and possibly others.”

According to Amabile (1988), creativity is the production of novel and useful ideas by any individual or group of individuals working together. Woodman, Sawyer, and Griffin (1993, p. 293) posit that “organizational creativity is the creation of a valuable, useful new product, service, idea, procedure, or process by individuals working together in a complex social system.” Yet others focus specifically on creativity as entailing new product development or the result of the product development process (Oldham & Cummings, 1996; Shalley, 1991). Oldham and Cummings (1996) argue that creative behaviour can be any form of product, idea, or process and must satisfy two conditions: being novel and being useful to the organization. In this thesis, I acknowledge both the novelty and the usefulness aspects of creativity, conceptualizing it as the generation of new ideas that improve the current organizational situation and provide solutions for organizational problems.¹

Employees’ creative behaviours can be beneficial for both their organization and themselves. For example, generating novel solutions to problem situations can stimulate organizational learning (Argyris & Schon, 1978; Barratt, 1998) and positive organizational change (Maimone & Sinclair, 2014). For employees, searching out new working methods and finding novel solutions to problem situations can increase their

¹ Creativity is different from innovation (see Amabile, 1988; Staw, 1990). While creativity focuses on the generation of novel products, ideas, or procedures at the individual level, innovation emphasizes the implementation of such outputs at the organizational level (Mumford & Gustafson, 1988; Oldham & Cummings, 1996). Thus, employee creativity lies at the foundation of an organization’s innovative endeavors. In addition, while creativity originates within the organization, innovation can be either initiated within the organization or induced by external sources (Woodman et al., 1993).

motivation (Mishra & Shukla, 2012; Parker, 1993), stimulate their career prospects (Seibert, Kraimer, & Crant, 2001), and enhance their job performance (Gong, Huang, & Farh, 2009; Oldham & Cummings, 1996).

Despite these beneficial effects, behaviours that are creative or change invoking, particularly those that focus on problem areas, may also be challenging because other organizational members may disagree about whether the proposed novel solutions constitute actual improvements (Van Dijk & Van Dick, 2009; Zhou & George, 2001) or such members may resist the solutions because of a perceived threat of reputation loss when the problems are directly tied to them (Buchanan & Badham, 1999; Kotter & Schlesinger, 1979; Yuan & Woodman, 2010). In light of these challenges, it is important to understand why some employees are more likely than others to generate new ideas for improvement.

2.2. Antecedents of creativity

In her componential theory of creativity, Amabile (1988) underscores three factors that drive creativity: domain-relevant skills, creativity-relevant processes, and task motivation. Domain-relevant skills capture employees' factual knowledge and skills in a particular domain, creativity-relevant processes entail the combination of knowledge required to generate creative ideas, and task motivation reflects employees' attitudes toward creative tasks. These three components, in turn, are influenced by a variety of factors. For example, Amabile argues that employees' education (both formal and informal) and their cognitive abilities have a significant impact on their domain-relevant skills. Furthermore, certain personality traits, previous experiences in creative tasks, and training in creative skills are possible determinants of creativity-relevant processes. In

terms of task motivation, Amabile's model emphasizes that it is employees' intrinsic motivation, rather than their extrinsic motivation, that plays a vital role in explaining creative endeavors, particularly during the initial stages of idea generation.

Amabile's (1988) pioneering work has had a significant influence on subsequent creativity research, particularly her acknowledgment that both individual and contextual factors influence employee creativity (Zhou & Shalley, 2003). Her model emphasizes that individual employees who have great creativity potential may not always produce many creative ideas, particularly if their organizational context prevents them from doing so. In the next subsection, I provide a brief summary of some of the individual and contextual antecedents of creativity. The objective is not to provide a complete overview, but rather to highlight a few key antecedents.

2.2.1. Individual factors

Early research attributed creative behaviour to individuals' personality characteristics and sought to identify a stable set of personality traits that could explain individuals' propensity to generate novel ideas. The findings of these studies turned out to be ambiguous, however, particularly when undertaken in organizational settings (Barron & Harrington, 1981; Martindale, 1989; Zhou & Shalley, 2003). For example, given the consensus that the Five-Factor model of personality provides a comprehensive and parsimonious representation of individual personalities (Wiggins & Trapnell, 1997), creativity researchers have applied this model to the study of individual creativity (e.g., Costa & McCrae, 1992; Feist, 1998; George & Zhou, 2001; McCrae, 1987). Among the five factors, openness to experience and conscientiousness are theorized to be the most conceptually relevant to creative behaviours (Costa & McCrae, 1992; McCrae, 1987;

Zhou & Shalley, 2003), yet empirical findings about their roles are not straightforward. Feist (1998), in his meta-analysis on scientific and artistic creativity, finds that creative scientists and artists are more open to experience but are less conscientious. In contrast, George and Zhou (2001) find that both openness to experience and conscientiousness contribute positively to employees' creative behaviour. These mixed findings can be explained by the roles of contextual factors in determining the usefulness of certain personality characteristics in shaping employee creativity.

Two other individual antecedents that have been investigated are creative self-efficacy and role identity. Creative self-efficacy refers to individuals' perceptions about their ability to be creative (Tierney & Farmer, 2002). In an investigation of individual creative action, Ford (1996) views self-efficacy beliefs as key motivational drivers of creativity. Similarly, Tierney and Farmer (2002) find a positive association between creative self-efficacy and creative behaviour. In addition, Farmer, Tierney, and Kung-Mcintyre (2003) study the impact of role identity, or one's self-identification as a creative person, on creativity, using a sample of engineers, software developers, research scientists, doctors, and pharmacists. They find that creative role identity contributes positively to creative performance, and this is particularly so when combined with contextual factors such as perceived organizational support for creativity.

More recently, researchers have investigated the role of psychological capital and thriving as drivers of employee creativity. Psychological capital (PsyCap) is a higher-order construct that consists of four components: self-efficacy, hope, optimism, and resilience. This construct has been studied in relation to various job-related work behaviours, including creativity. For example, Rego, Sousa, Marques, and e Cunha

(2012) investigate the mediating role of PsyCap in connecting authentic leadership with employee creativity; they find a strong positive association between PsyCap and creativity. Furthermore, based on a sample of individuals across different organizations, hierarchical levels, and jobs, Sweetman, Luthans, Avey, and Luthans (2011) find that the four components of PsyCap are each positively related to creativity, but PsyCap as a second-order construct has an even stronger relationship with creativity.

Thriving is another individual factor that has been featured in recent creativity research. Spreitzer, Sutcliffe, Dutton, Sonenshein, and Grant (2005) define thriving as a psychological state that combines the simultaneous experience of vitality and learning. Vitality refers to the feeling of being passionate and excited; learning refers to the self-development that comes with acquiring new knowledge and skills. Thriving employees are happy at work and tend to contribute significantly to organizational effectiveness through, for example, their creative behaviours (Kark & Carmeli, 2009; Spreitzer & Porath, 2012). Similarly, Carmeli and Spreitzer (2009) find that thriving relates positively to innovative work behaviours and, in particular, plays a mediating role between employees' connectivity and such behaviours. Wallace, Butts, Johnson, Stevens, and Smith (2013) also find that employees who score high on thriving are more innovative.

While research on individual antecedents has mostly focused on how creative behaviours can be stimulated by positive factors, such as creative personalities (e.g., Oldham & Cummings, 1996; Zhou & Oldham, 2001), some research reveals that individuals with less creative personalities may also engage in such behaviours (Zhou & Shalley, 2003). This observation follows Amabile's (1988) original argument about the salience of contextual factors in fostering employees' creative behaviours, irrespective of

their individual characteristics (George & Zhou, 2002; Madjar, Oldham, & Pratt, 2002; Zhou, 2003). In the next subsection, I discuss the role of contextual factors in greater depth.

2.2.2. Contextual factors

Early work on the contextual antecedents of creativity examined the impact of situational factors on employees' intrinsic motivation to engage in creativity, which in turn affects actual creative behaviours. Much of this initial work relied on cognitive evaluation theory (Deci & Ryan, 1985), which posits that individuals who believe that they are given the opportunity to undertake a particular task successfully will experience a higher intrinsic motivation to perform the task. In general, this line of research reveals that contextual factors can play two distinct roles (informational and controlling) and that the impact of these factors on employees' intrinsic motivation for creativity depends on the relative salience of the two functions (Deci & Ryan, 1985). When the informational aspect is salient, employees perceive strong support and encouragement to be creative; when the controlling aspect prevails, they feel that they need to behave in certain prescribed manners, and their ability to engage in creative behaviours is thwarted (Zhou & Shalley, 2003).

Using an interactionist perspective of organizational creativity, Woodman et al. (1993) theorize creativity to be an individual-level phenomenon that is affected by both dispositional and situational factors. In particular, they postulate that the combination of individual dispositional factors and organizational situational factors explains employee creativity. One such situational factor is the level of knowledge sharing that takes place among employees. Surveying employees of tourist hotels in different international

locations, Hu, Horng, and Sun (2009) find that the level of knowledge sharing that takes place among employees is positively associated with their innovation performance.

Similarly, in a study of employees in public corporations in the Taiwanese finance and insurance industries, Yu, Yu-Fang, and Yu-Cheh (2013) find that employees' knowledge sharing stimulates their innovative behaviours. Liao, Fei, and Chen (2007) find that the positive relationship between employees' knowledge sharing and innovative capabilities can be explained by their enhanced absorptive capacity.

Another contextual factor that is relevant for creativity is social relationship building among employees (Perry-Smith and Shalley, 2003). In a comprehensive study of team creativity, Barczak, Lassk, and Mulki (2010) find that the level of trust in teams positively contributes to team creativity through the promotion of a collaborative culture. Perry-Smith (2006) indicates that employees' network position in the organization, but not their relational strength, has a positive effect on their creative behaviour. Scott and Bruce (1994) find that the quality of the exchanges between employees and other members of work group contribute positively to innovative behaviour. At the firm level, De Clercq and colleagues (2013) show that the level of social capital among employees, conceptualized as the extent to which their relationships are marked by high levels of trust and goal sharing, positively influences their entrepreneurial behaviours because of the knowledge sharing that such social capital promotes. This research is consistent with research, outside the realm of creativity, on the important role of social relationships in the promotion of intrafirm knowledge exchanges (Henttonen et al., 2013; Noorderhaven & Harzing, 2009).

The ways that organizations function internally, as reflected in their climate or culture, are also instrumental for employees' creative behaviours (Saleh & Wang, 1993; Scott & Bruce, 1994; Yuan & Woodman, 2010). For example, Shalley and Gilson (2004) note that employees' perceptions of fairness stimulate their creative behaviour because these perceptions decrease concerns about how organizational decisions are made and increase the likelihood of successfully managing creative projects. Employees' creative performance is also fueled when their organization delegates decision power (Si & Wei, 2012) and maintains an open culture whereby feedback about important organizational matters is encouraged without fear of criticism (De Dreu & West, 2001).

2.2.3. Proposed conceptual framework

While the aforementioned review indicates that both individual and contextual factors shape employee creativity, the theoretical focus of this study is on the latter. In particular, I acknowledge the prominent role of knowledge-sharing routines in spurring employee creativity (Gong et al., 2013; Ipe, 2003; Schepers & Van den Berg, 2007). In general, knowledge sharing has been recognized as a critical factor for organizations' competitive advantage because of its associated ability to generate *novel* knowledge (Chiang et al., 2015; Grant, 1996). Acknowledging this critical role of knowledge sharing in stimulating creative behaviours, I focus in particular on the contingencies that underpin the relationship between employees' knowledge-sharing efforts and their creativity.

Knowledge has been defined as “a fluid mix of framed experience, values, contextual information, and expert insights that provides a framework for evaluating and incorporating new experiences and information” (Davenport & Prusak, 1998, p. 5).

Knowledge sharing, in turn, refers to the process of exchanging valuable information (Gagné, 2009; van den Hooff & De Ridder, 2004), enabling employees to assist one another in achieving organizational goals (De Clercq et al., 2013). Thus, knowledge itself provides the foundation for knowledge sharing: it is a resource that is held by individual employees but becomes a collective property when shared with others (Kessel et al., 2012).

I focus on the role of employees' knowledge-sharing efforts in spurring creativity. These efforts capture the extent or frequency with which employees share ideas, information, and opinions with one another (De Clercq et al., 2013; Henry, 1995). While the extent or frequency of knowledge sharing is an important aspect of employee interactions, the *quality* of the exchanged knowledge also matters in terms of the ability to generate novel ideas for organizational improvement (Amabile, 1988; Nahapiet & Ghoshal, 1998; Zhou & Shalley, 2003). The exchange of high-quality knowledge is not automatic or without risk. For example, the free exchange of valuable personal experiences may cause employees to feel as if they are surrendering power and operating against their own interests (Boh & Wong, 2015; Kim & Mauborgne, 1998; Liu & DeFrank, 2013), especially to the extent that they view their personal knowledge base as an asset that needs to be protected against undue appropriation by organizational peers (Luo, Slotegraaf, & Pan, 2006; Tsai, 2002). Moreover, when employees share their personal insights into how organizational problem situations can be solved, they run the risk of their efforts being sabotaged or even used against them, particularly when other members perceive that the suggested solutions compromise such members' own situations or status in the organization (Yuan & Woodman, 2010; Zhou & George, 2001).

Because it is not only the level but also the quality of knowledge sharing that drives creative outcomes, it is important to understand the circumstances under which the creative potential inherent to extensive knowledge-sharing efforts is more likely to materialize.

I postulate that the extent to which employees' knowledge-sharing efforts can lead to creativity is (1) enhanced by the quality of their peer relationships and (2) diminished by their perception that decision making in the organization is guided by destructive politics. First, I consider two aspects of relationship quality: relationship informality, or the extent to which employees maintain close social interactions with peers and know them on a personal level (Nahapiet & Ghoshal, 1998), and relationship emotional openness, or the propensity of employees to freely and fully express their emotions, both positive and negative, with colleagues (Stephens et al., 2013). Second, the perception that decision making is guided by self-serving motivations reflects the presence of destructive political games, whereby employees believe that the organization supports "working behind the scenes" as a valid way to acquire resources, even if such behaviour comes at the expense of the collective interest (Abbas, Raja, Darr, & Bouckenooghe, 2014; Hochwarter, Kacmar, Perrewé, & Johnson, 2003). I theorize that the quality of peer relationships plays a beneficial role in leveraging knowledge-sharing efforts and converting them into creative behaviours, but perceptions of organizational politics are counterproductive in this process.²

Figure 1 depicts the proposed conceptual framework and its constitutive

² Some research indicates that organizational politics may also play a positive role, particularly when conceptualized as employees' political skills (Perrewé, Ferris, Frink, & Anthony, 2000). However, the focus here is on dysfunctional political games, capturing perceptions of self-serving behaviours that come at the expense of organizational well-being (Hochwarter et al., 2003; Kacmar & Ferris, 1991).

hypotheses. The baseline relationship pertains to the positive link between employees' knowledge-sharing efforts and their creativity. Furthermore, it indicates how this link is moderated by two aspects of relationship quality (informality and emotional openness) and one key feature of organizational decision making (perceived organizational politics). The framework includes both the individual moderating effects of these three factors and their independence as reflected in the beneficial role of relationship quality in mitigating the negative moderating effect of perceived organizational politics on the knowledge-sharing effort–creativity relationship.

[Insert Figure 1 about here]

3. Hypotheses

3.1. Knowledge-sharing efforts and creativity

I hypothesize a positive relationship between employees' knowledge-sharing efforts and creativity. First, extensive knowledge-sharing efforts enrich employees' personal knowledge bases (Cohen & Levinthal, 1990), enhancing their ability to match organizational problems with opportunities for improvement (Floyd & Lane, 2000; Gong et al., 2013). When employees frequently exchange knowledge with their organizational peers, they are better equipped to identify and exploit novel solutions to organizational problems (Chiang et al., 2015). Such solutions tend to require a diversity of expertise and skill, making it challenging for employees to identify them single-handedly (Huang, Hsieh, & He, 2014). When employees do not engage in regular knowledge sharing, they may overlook critical opportunities for how their organization can maintain its competitive advantage (Tripsas & Gavetti, 2000).

Second, extensive knowledge flows enable employees to recognize a broader set of possibilities regarding how certain organizational problems can be solved that in turn increases the perceived feasibility of achieving organizational improvement (De Clercq et al., 2013). That is, employees can more confidently exploit novel opportunities for organizational improvement when they are in a position to assess and compare different decision alternatives simultaneously. Moreover, the variation of solution alternatives afforded by extensive knowledge-sharing efforts should make employees more efficient in comparing the relative strengths and weaknesses of their different ideas for improvement (Eisenhardt, 1989), thus increasing their confidence that the proposed solutions will be cost effective and encounter less resistance by organizational decision makers (Yuan & Woodman, 2010; Zhou & George, 2001). Conversely, when employees cannot rely on frequent knowledge-sharing routines with their organizational peers, they likely perceive fewer possibilities in terms of how they can successfully generate novel solutions to organizational problems. In summary, when employees are exposed to a broader knowledge base, accomplished through extensive knowledge-sharing efforts with colleagues, they have more alternatives for solving organizational problems in novel ways.

Hypothesis 1: There is a positive relationship between employees' knowledge-sharing efforts and creativity.

3.2. Moderating role of relationship quality

3.2.1. Relationship informality

I hypothesize that the positive relationship between employees' knowledge-sharing efforts and creativity should be stronger when employees' relationships with their organizational peers are marked by high levels of informality. Relationship informality reflects the salience of close social contacts and personal connections with colleagues (De Clercq, Thongpapanl, & Dimov, 2011). Previous research indicates that such informality enhances the quality of the knowledge that is exchanged by promoting intensive efforts to accomplish organizational goals (Nahapiet & Ghoshal, 1998). Informal relationships are particularly effective in bringing tacit knowledge to the surface (Szulanski, 1996), knowledge that is instrumental in finding previously unexplored solutions to organizational problems (Nonaka, 1994). Similarly, close informal relationships with organizational peers can help employees work through conflicting viewpoints to more effectively leverage a collective knowledge base and convert this into original solutions to organizational problems (De Dreu, Weingart, & Kwon, 2000).

Moreover, when employees maintain informal relationships with their peers, their fear of criticism in proposing novel solutions to organizational problems should be reduced (Tsai, 2002), making them more willing to offer risky suggestions and propose novel solutions (Floyd & Lane, 2000; Payne et al., 2011). Thus, when relationship informality is high, employees are more prone to ask for help and take greater risks in their knowledge exchange efforts, which will increase the potency of these efforts and lead to enhanced creativity. When employees know one another on a personal level, they tend to be more open to others' knowledge and to readily apply it to improve the current

organizational situation (Nahapiet & Ghoshal, 1998). In short, to the extent that employees are able to rely on informal relationships with their peers, they have a greater ability to leverage extensive knowledge-sharing efforts and convert these into the generation of novel solutions to organizational problems.

Hypothesis 2a: The positive relationship between employees' knowledge-sharing efforts and creativity is moderated by the informality of their peer relationships, such that the relationship is stronger at higher levels of relationship informality.

3.2.2. Relationship emotional openness

I also consider the moderating role of the emotional openness of peer relationship that reflects employees' ability to talk constructively about their emotions with colleagues, whether these emotions are positive or negative (Stephens et al., 2013). I hypothesize that the beneficial effect of employees' knowledge-sharing efforts on their creativity should be greater when their peer relationships are marked by higher levels of emotional openness. The ability to freely and fully express emotions should diminish the caution or reservation that employees exhibit when discussing possible solutions to organizational problems (Dutton & Heaphy, 2003), allowing them to devote more time to figuring out how their own knowledge can be effectively combined with that of others in the search for original solutions to organizational problems (Fredrickson, 2003; Pennebaker & Francis, 1996). Furthermore, the free and full expression of emotions helps employees connect with their peers on a deeper level (Morris & Keltner, 2000), motivating them to provide more situation-specific information when seeking to find a

solution to a particular organizational problem (Keltner & Haidt, 1999). High levels of relationship emotional openness also provide employees with deeper insight into one another's emotional needs and thus a better understanding of what kind of knowledge is most useful in generating novel ideas that satisfy others' preferences (Stephens et al., 2013).

Finally, intrafirm exchanges are typically marked by a certain level of competition when employees compete for scarce organizational resources in the pursuit of their personal goals (Luo et al., 2006; Tsai, 2002). When employees feel comfortable expressing their fear about how their sharing of privileged knowledge, in the search for novel solutions to organizational problems, can undermine their access to organizational resources, they may get reassurance from their peers that this fear is unjustified (Stephens et al., 2013). As a result, they should have a higher propensity to share privileged and confidential knowledge with peers—and even share experiences about previous failures (Nahapiet & Ghoshal, 1998)—which increases the likelihood that their knowledge-sharing efforts can be successfully turned into novel solutions to organizational problems.

Hypothesis 2b: The positive relationship between employees' knowledge-sharing efforts and creativity is moderated by the emotional openness of their peer relationships, such that the relationship is stronger at higher levels of emotional openness.

3.3. Moderating role of perceived organizational politics

I also hypothesize that the positive relationship between knowledge-sharing efforts and creativity suffers at high levels of perceived organizational politics. When employees believe that organizational decision making is marked by self-serving behaviours, they may experience high levels of anxiety because they fear that these behaviours compromise their ability to meet job responsibilities (Chang et al., 2009; Crawford et al., 2010). This energy-draining effect should reduce their ability to leverage knowledge-sharing routines and find novel solutions to organizational problems. In other words, when organizational decision making is perceived as unfair and marked by hidden agendas, employees likely focus their energy on simply meeting their regular job requirements rather than going out of their way to exploit collective knowledge bases into novel ways to solve problems.

In addition to reducing the ability to leverage knowledge-sharing efforts into enhanced creative behaviours, perceptions of organizational politics can also undermine employees' motivation to apply relevant knowledge to such behaviour. The belief that self-serving motives are salient in organizational decision making gives rise to feelings of frustration or even anger in employees (Kacmar & Ferris, 1991), undermining the satisfaction they derive from their work and employment situation in general (Chang et al., 2009; Ferris & Kacmar, 1992). Thus, employees' propensity to apply their personal insights, obtained via knowledge-sharing routines with other members, to creative behaviours that are helpful to their organization will be diminished when they are overwhelmed by negative feelings about how their organization functions. When employees are unhappy with how decisions are made and believe that such decisions can

undermine their own performance because of destructive political games, they fear that their personal well-being is compromised or unattended (Abbas et al., 2014). These negative feelings should reduce enthusiasm to apply knowledge-sharing activities with peers to the generation of novel solutions to organizational problems.

Hypothesis 3: The positive relationship between employees' knowledge-sharing efforts and creativity is moderated by perceptions of organizational politics, such that the relationship is weaker at higher levels of perceived organizational politics.

3.4. Combined roles of perceived organizational politics and relationship quality

I also hypothesize that the negative moderating role of perceived organizational politics (Hypothesis 3) will be mitigated in conditions of high relationship quality, suggesting a three-way interaction among knowledge-sharing efforts, perceived organizational politics, and the two aspects of relationship quality (informality and emotional openness). Hypothesis 3 suggests that when organizational decision making is marked by destructive political games and self-serving behaviours, employees' propensity to leverage insights gained from knowledge-sharing efforts into new ideas for improvement is reduced. However, this destructive effect should be weaker when employees can rely on supportive peer relationships, either reflected in the presence of strong informal relationships or the ability to freely express emotions with colleagues. The presence of relationship quality influences the nature of the knowledge exchange that takes place between employees and their colleagues (Nahapiet & Ghoshal, 1998; Perry-

Smith, 2006), providing deeper insights into how the negative consequences of politics-based decision making can be mitigated (Bouckennooghe, 2012). Thus, employees' access to supportive peer relationships increases their confidence that it is possible to protect themselves against the threats of strongly politicized environments (Vigoda, 2000); so the likelihood of refraining from applying their collective knowledge bases to novel solutions to organizational problems becomes lower.

Furthermore, when employees maintain high-quality relationships with their organizational peers, they should be less negatively affected by the self-serving behaviours that some of these peers may engage in themselves. The close personal connections and comfort in expressing their emotions may help employees understand or even appreciate how certain self-serving behaviours help these colleagues circumvent rigid decision-making procedures, such that they can more easily leverage their personal expertise into novel practices (Perrewé, Ferris, Frink, & Anthony, 2000). In this case, employees may perceive others' self-serving behaviours as less threatening to their own work situation, and they become less hesitant to apply their knowledge bases to creative behaviours in the presence of a strongly politicized organizational climate. Conversely, when their relationships with colleagues are characterized by low levels of relationship quality—reflected in very formal relationships or an inability to express personal emotions in a constructive manner—employees should feel more threatened by the presence of destructive political games (Bouckennooghe, 2012) and fear that these behaviours will undermine their own standing in the organization when suggesting novel solutions to organizational problems. This belief, in turn, should intensify the negative impact of perceived organizational politics on their willingness to leverage knowledge-

sharing efforts into enhanced creativity.

Hypothesis 4a-4b: The harmful effect of employees' perceptions of organizational politics on the positive relationship between their knowledge-sharing efforts and creativity is moderated by the quality of their relationships with organizational peers, such that the harmful effect is weaker at higher levels of (a) relationship informality and (b) emotional openness.

4. Research method

4.1. Data collection

To test the hypotheses, data were collected from the employees of a Canadian-based organization that operates in the healthcare sector. As mentioned in the “Introduction” section, this context is highly relevant for this study due to the important role of intraorganizational knowledge sharing in stimulating employee creativity in these organizations (Herzlinger, 2006; Kessel et al., 2012; Nembhard & Edmondson, 2006) coupled with the challenge of effective integration of dispersed knowledge. This challenge may originate from the status differences that exist among different members (e.g., doctors, nurses, administrative staff), rigid decision-making structures, and employees' fear that novel solutions to organizational problems will undermine their own position because of resistance from powerful others in the medical hierarchy (Adelman, 2012; Ramanujam & Rousseau 2006; Edmondson, 2003; Nembhard & Edmondson, 2006).

Furthermore, because the organization under study had recently undergone a significant restructuring, its management was interested in better understanding how employees can contribute to organizational effectiveness during this transition period, including their ability to generate novel ideas to solve problems and improve the organization. Thus, an investigation of why and when some employees are more likely than others to engage in creative behaviors was highly relevant for this organization. The study was strongly endorsed by senior management and received ethics clearance both from Brock University and the organization's own research ethics board. Because different organizations may face different external challenges that affect the urgency of employees' creative behaviours (Dayan & Di Benedetto, 2011), focusing on a single organization avoided the presence of any such unobserved differences in the external environment.

Data collection relied on a survey instrument administered in one of two ways: respondents could complete a paper-and-pencil version of the survey and return it through a prepaid preaddressed envelope, or they could participate in the study by completing an online version of the survey. A preliminary version of the survey was pretested with a small set of employees who did not participate in the actual data collection. Feedback from these pilot participants was incorporated to improve the survey in terms of readability of the questions and data quality. Participants were assured complete confidentiality and were informed that only the researchers had access to their individual responses. Moreover, participants were encouraged to answer the questions as honestly as possible, they were repeatedly assured that there were no right or wrong answers, and they were informed that it was natural for employees to provide varying

scores on the survey questions. These efforts and reassurances minimized the possibility of social desirability or acquiescence biases (Spector, 2006).

A total of 599 surveys were distributed; 20 were returned unanswered due to incorrect addresses. A total of 259 respondents returned their respective surveys, for a response rate of 43%. A comparison of early and late respondents and a comparison of paper-and-pencil and online responses did not reveal any significant differences in terms of the study's focal variables. After exclusion of incomplete surveys, the final sample consisted of 226 employees; 84% were women, average age was 47 years, and average organizational tenure was 14 years.

4.2. Measures

The survey items for the five focal constructs (creativity, knowledge-sharing efforts, relationship informality, relationship emotional openness, and perceived organizational politics) were all drawn from established scales. Items were evaluated on a seven-point Likert scale, ranging from “completely disagree” (1) to “completely agree” (7). Table 1 shows the factor loadings and t-values for each item, as well as the Cronbach's alpha, composite reliability, and average variance extracted (AVE) for each construct.

[Insert Table 1 about here]

4.2.1. Creativity

Employee creativity was captured with three items drawn from previous research (Janssen, 2001; Scott & Bruce, 1994): (1) “I often create new ideas for improvement,” (2) “I often generate original solutions to problems,” and (3) “I often search out new working methods, techniques, or instruments” (Cronbach's alpha = .925). Although some studies

have used supervisor ratings to assess employee creativity (e.g., George & Zhou, 2001; Oldham & Cummings, 1996; Scott & Bruce, 1994), the use of self-reported creativity measures is not uncommon (e.g., Kaufman and Baer, 2004; Shalley, Gilson, & Bloom, 2009) and may even be preferred (Zhou, Shin, & Cannella, 2008). A significant advantage of self-reported creativity data is that supervisors typically lack the ability to observe the entire range of creative activities their employees engage in, thus supporting the use of self-perceived measures (Hocevar, 1981; Hocevar & Bachelor, 1989; Zhou et al., 2008). Creative behaviours are goal directed and intentional (Shalley, 1991), so their assessment by employees themselves, who are most aware and knowledgeable about their actual involvement in these behaviours (Davis, 1992; Janssen, 2000; Lumsden, 1999), has great value.

Moreover, concerns about common method bias due to reliance on self-reported creativity should be alleviated because previous studies have found positive and significant correlations between self-rated creativity and supervisor ratings of creativity (Axtell, Holman, & Unsworth, 2000) and with established creativity measures such as the Barron Welsh Art Scale (Furnham, 1999) and the Torrance Tests of Creative Thinking (Reiter-Palmon, Robinson-Morrall, Kaufman, & Santo, 2012) (cf. Sarac, Efil, & Eryilmaz, 2014). Finally, because creative behaviours originate from the conscious choices made by individual employees (Ford, 1996) and because these behaviours cannot be viewed in isolation of employees' own subjective experiences (Csikszentmihalyi, 1990), investigating why some employees are more likely than others to undertake creative activities, based on self-perceptions of these activities, is of significant value for better understanding the creativity process (cf. Zhou et al., 2008).

4.2.2. Knowledge-sharing efforts

Four items from previous research (De Clercq et al., 2013) were used to measure the extent to which employees engage in extensive knowledge-sharing efforts: (1) “There is a high level of knowledge sharing between my colleagues and myself,” (2) “My colleagues and I regularly communicate with each other,” (3) “My colleagues and I provide each other with a lot of feedback,” and (4) “There is a lot of two-way communication between my colleagues and myself” (Cronbach’s alpha = .913).

4.2.3. Relationship informality

Employees’ relationship informality was measured with four items from previous research on intrafirm social interaction (De Clercq et al., 2011): (1) “My colleagues and I spend significant time together in social situations,” (2) “My colleagues and I maintain close social relationships with one another,” (3) “My colleagues and I know each other on a personal level,” and (4) “My relationship with colleagues is very informal” (Cronbach’s alpha = .786).

4.2.4. Relationship emotional openness

To assess the emotional openness of employees’ relationships with organizational peers, I relied on Stephens et al.’s (2013) measure of emotional carrying capacity, which captures the extent to which employees can express positive and negative emotions in their interactions with other organizational members. The following three items were used: (1) “I can fully express my emotions to my colleagues,” (2) “When my colleagues and I interact with each other, we express both positive and negative feelings to each other,” and (3) “When I talk about my emotions with my colleagues, I feel like it is constructive” (Cronbach’s alpha = .900).

4.2.5. Perceived organizational politics

Perceived organizational politics was assessed using four items drawn from Hochwarter et al. (2003): (1) “People spend too much time sucking up to those who can help them,” (2) “People are working behind the scenes to ensure that they get their piece of the pie,” (3) “There is a lot of self-serving behavior going on in my department,” and (4) “People do what's best for them, not what's best for the department” (Cronbach’s alpha = .925).

4.2.6. Control variables

To account for alternative explanations of employees’ creativity, I controlled for gender because previous research indicates that this factor might have an impact on the likelihood to engage in creative behaviours (Baer & Kaufman, 2008). I also controlled for age (in years), education (1 = secondary; 2 = college, nonuniversity; 3 = bachelor, university; 4 = masters; and 5 = doctorate), and organizational tenure (in years) because more experienced or skilled employees may feel more confident about their ability to find effective novel solutions to organizational problems (Gong et al., 2009).

4.3. Assessment of measures

Following Anderson and Gerbing (1988), I assessed a five-factor measurement model using AMOS 22.0. Each of the constructs had Cronbach’s alpha values and composite reliabilities higher than .70, which supports their reliability. Table 1 shows the results of the CFA. The fit of the measurement model was very good: $\chi^2_{(125)} = 183.98$, NFI = .94, TLI = .97, CFI = .98, and RMSEA = .05. The results also indicated convergent validity of the constructs: the t-values for all items of each construct exceeded the 2.0 threshold (Anderson & Gerbing, 1988), and the magnitude of the AVE value of each

construct was greater than .50 (Bagozzi & Yi, 1988). In support of the discriminant validity of the five constructs, AVE values were greater than the squared correlations between the corresponding pairs of constructs (Fornell & Larcker, 1981), and for all pairs of constructs, except for knowledge-sharing efforts and relationship emotional openness, there were significant differences ($\Delta\chi^2_{(1)} < .3.84$) between the unconstrained and constrained models (Anderson & Gerbing, 1988). Table 2 shows the bivariate correlations and descriptive statistics of the study's variables.

[Insert Table 2 about here]

I performed two tests to check for common method bias. First, according to Harman's single-factor test (Podsakoff & Organ, 1986), if common method bias were an issue, a single factor would account for most the variance in the data. The first factor explained only 36% of the variance, indicating that this bias was not a significant concern. Second, a confirmatory factor analysis (CFA) in which each measurement item loaded on a single factor produced very poor model fit ($\chi^2_{(135)} = 1,882.48$, normed fit index [NFI] = .39, Tucker–Lewis index [TLI] = .24, confirmatory fit index [CFI] = .40, root mean square error of approximation [RMSEA] = .24), significantly worse than that of the aforementioned five-factor model ($\Delta\chi^2_{(10)} = 1,698.50, p < .001$). Finally, previous research indicates that the risk of common method bias is substantially lower for theoretical models that include moderating effects—because respondents have trouble identifying these effects (Brockner, Siegel, Daly, Typer, & Martin, 1997; Simons & Peterson, 2000)—as was the case in this study.

4.4. Analytical procedure

The hypotheses were tested using hierarchical ordinary least squares regression analysis.³ Following the recommendations of Aiken and West (1991) and Cohen and Cohen (1983), I entered the variables in distinct steps (Table 3). Model 1 included the control variables, Model 2 added knowledge-sharing efforts, and Model 3 added the three moderators: relationship informality, relationship emotional openness, and perceived organizational politics. Models 4, 5, and 6 added the knowledge-sharing efforts × relationship informality, knowledge-sharing efforts × relationship emotional openness, and knowledge-sharing efforts × perceived organizational politics interaction terms, respectively. Previous research indicates that it is appropriate to include multiple interaction terms separately because the simultaneous inclusion of multiple interaction terms in one model can mask true moderating effects (Aiken & West, 1991; De Clercq, Bouckennooghe, Raja, & Matsyborska, 2014; Zahra & Hayton 2008). Model 7 added the three-way interaction term knowledge-sharing effort × perceived organizational politics × relationship informality, together with its associated three two-way interactions, as recommended by Aiken and West (1991). Similarly, Model 8 included the three-way interaction term knowledge-sharing effort × perceived organizational politics × relationship emotional openness, together with the associated two-way interactions.

[Insert Table 3 about here]

³ An assessment of the interclass correlation coefficients of the focal constructs—creativity (ICC[1] = .07 and ICC[2] = .43), knowledge-sharing efforts (ICC[1] = .07 and ICC[2] = .40), relationship informality (ICC[1] = .08 and ICC[2] = .45), relationship emotional openness (ICC[1] = .05 and ICC[2] = .35), and perceived organizational politics (ICC[1] = .08 and ICC[2] = .46)—indicated that hierarchical linear modeling was not appropriate for testing the hypotheses.

5. Results

The results of the control model (Model 1) indicate that employees' creativity levels are higher when they have a higher education level ($\beta = .258, p < .05$), but there are no significant effects of gender, age, and organizational tenure on creativity. Furthermore, the results support, albeit weakly, Hypothesis 1, which postulates that extensive knowledge-sharing efforts should enhance creativity ($\beta = .151, p < .10$, Model 2). Although they fall outside the theoretical focus of this study, the results of Model 3 indicate a direct positive effect of relationship emotional openness on creativity ($\beta = .231, p < .01$), but no direct effects of relationship informality ($\beta = -.038, ns$) or perceived organizational politics ($\beta = .043, ns$).

The results of Models 4–6 support the hypothesized moderating effects of relationship informality ($\beta = .167, p < .05$), relationship emotional openness ($\beta = .102, p < .05$), and perceived organizational politics ($\beta = -.109, p < .05$) on the knowledge-sharing efforts–creativity relationship. Thus, the likelihood that increasing levels of knowledge-sharing efforts enhance creativity is higher when employees can rely on informal peer relationships (Hypothesis 2a) and freely express their emotions with colleagues (Hypothesis 2b), but the likelihood is lower when employees perceive that organizational decision making is marked by destructive political games (Hypothesis 3). To clarify the nature of these interactions, I plot the effects of knowledge-sharing efforts on creativity for high and low levels of the three moderators in Figure 2, Panels A–C, combined with a simple slope analysis for each (Aiken & West, 1991). The results of the simple slope analysis in Panels A and B indicate that the relationship between knowledge-sharing efforts and creativity is positive and significant at high levels of

relationship informality ($\beta = .321, p < .05$) and relationship emotional openness ($\beta = .214, p < .05$), but it becomes nonsignificant at low levels of these two moderators ($\beta = -.013, ns$; $\beta = .010, ns$; respectively). Similarly, the relationship between knowledge-sharing efforts and creativity is positive at low levels of perceived organizational politics ($\beta = .264, p < .05$) but becomes not significant when this moderator is high ($\beta = .046, ns$).

[Insert Figure 2A–C about here]

The results also reveal support for Hypothesis 4a in the positive three-way interaction of knowledge-sharing efforts, perceived organizational politics, and relationship informality in Model 7 ($\beta = .099, p < .01$). The negative moderating effect of perceived organizational politics on the positive knowledge-sharing efforts–creativity relationship is weaker at higher levels of relationship informality. To clarify this interaction, I plot the moderating effect of perceived organizational politics on the knowledge-sharing efforts–creativity relationship at high versus low levels of relationship informality in Figure 3. At high levels of relationship informality (Panel A), the lines are closer to being parallel than when relationship informality is low (Panel B). In other words, the harmful effect of perceived organizational politics on the knowledge-sharing effort–creativity link is mitigated when employees can draw from informal peer relationships. Following Dawson and Richter (2006), I also assess whether the slope differences in Figure 3 are significant. The results of this analysis show that the slope difference in Figure 3, Panel A, is not significant ($t = .860, ns$), but it is significant in Panel B ($t = -3.696, p < .001$), in further support of Hypothesis 4a.

[Insert Figure 3A–B about here]

The results for Hypothesis 4b mirror those of Hypothesis 4a, in that the negative moderating effect of perceived organizational politics on the knowledge-sharing efforts–creativity relationship is weaker at high levels of relationship emotional openness ($\beta = .078, p < .01$). Figure 4 provides additional detail: When relationship emotional openness is high (Panel A), perceived organizational politics has less of a negative effect on the knowledge-sharing efforts–creativity relationship than when it is low (Panel B). Thus, the harmful effect of perceived organizational politics is less salient when employees can openly express both positive and negative emotions with their colleagues. In further support for Hypothesis 4b, Figure 4 indicates an insignificant slope difference in Panel A ($t = .482, ns$) but a significant slope difference in Panel B ($t = -3.079, p < .01$).

[Insert Figure 4A – B about here]

Although the theoretical focus of this study is on the concurrent interplay between knowledge-sharing efforts on the one hand and relationship quality and perceived organizational politics on the other hand, previous research suggests that the nature of the relationships that employees have with their colleagues and their perceptions of organizational decision-making processes may also have a direct impact on the extent to which they engage in extensive knowledge sharing (e.g., De Clercq et al., 2013; Grant, 1996; Kim & Mauborgne; Tsai & Ghoshal, 1998). Accordingly, I performed a robustness check of the results by estimating five structural equation models, corresponding with the five regression models (Models 4–8 in Table 3), which included and estimated the covariances between the moderators and the knowledge-sharing-efforts variable. The nature of the hypothesized effects are consistent with those obtained from the regression analysis reported in Table 3, indicating that these effects hold when taking into account

possible interdependencies between the moderators (the two relationship quality variables and perceived organizational politics) on the one hand and the independent variable (knowledge-sharing efforts) on the other hand (De Clercq, Thongpapanl, & Dimov, 2009).

6. Discussion

6.1. Discussion of findings

Employees' creative behaviours can help organizations sustain a competitive advantage (Chen & Kaufmann, 2008; Halbesleben et al., 2003) and support employees' own learning (Parboteeah, Hoegl, & Muethel, 2015) and satisfaction (Mishra & Shukla, 2012). Therefore, it is important to understand how such behaviours emerge in organizations, particularly taking into account employees' embeddedness in the broader organizational context (Amabile, 1988; Woodman et al., 1993). A critical driver of creativity that has been acknowledged in the extant literature is knowledge sharing across organizational members (Tang et al., 2014).

Previous research has primarily examined how contextual factors can function as direct enablers of such knowledge-sharing activities (Henttonen et al., 2013; MacCurtain et al., 2010) or creative behaviours (Chen et al., 2008; Si & Wei, 2012) rather than on how the concurrent interplay between knowledge-sharing efforts and contextual factors affects employees' creative behaviour. The lack of previous attention to this issue is somewhat surprising, in light of the recognition that excessive knowledge-sharing efforts do not necessarily spur the exchange of high-quality knowledge (De Clercq et al., 2013). The sharing of high-quality, valuable knowledge may cause employees to feel as if they are relinquishing power (Kim & Mauborgne, 1998; Liu & DeFrank, 2013), at least to the

extent that they regard their personal knowledge bases as assets that need to be protected from appropriation by organizational peers (Tsai, 2002). Therefore, in this research, I attempt to explain why and under which circumstances employees' knowledge-sharing efforts generate creative outcomes.

The baseline hypothesis of this thesis is that employees' knowledge-sharing efforts should be useful for and reflected in their creative behaviours. Investing significant time in sharing knowledge with colleagues enhances employees' ability to enrich their own knowledge base with that of others, in turn helping to generate creative insights into how the current organizational situation can be improved (Cohen & Levinthal, 1990). Thus, extensive knowledge-sharing efforts provide employees with opportunities for mutual learning and new knowledge creation, which in turn enhances their ability to find novel solutions to organizational problems (Kogut & Zander, 1992; Nonaka, 1994; Tsai & Ghoshal, 1998). This thesis yields empirical support for this argument, although the relationship between knowledge-sharing effort and employee creativity is relatively weak (Model 2). The presence of a weak relationship indicates that the mere intensity of knowledge exchanges might not be sufficient to guarantee creative knowledge combinations (De Clercq et al., 2013), and thus supportive contextual factors are also needed to enhance the potential of knowledge-sharing efforts to lead to greater creativity.

I consider two sets of contextual factors that might be relevant in this process: the quality of peer relationships (conceptualized as the informality and emotional openness of these relationships) and the nature of organizational decision making (conceptualized as perceptions of organizational politics). First, I posit that when employees know one

another on a personal level and maintain informal relationships, they feel more comfortable sharing high-quality knowledge (Nahapiet & Ghoshal, 1998), such as tacit knowledge that otherwise would not come to the surface (Szulanski, 1996). Similarly, when relationships are characterized by high levels of emotional openness, employees are more likely to feel comfortable sharing valuable personal insights with one another, and they become more attuned to how the creative outcomes that emerge from their knowledge-sharing efforts can meet on another's emotional needs (Keltner & Haidt, 1999; Stephens et al., 2013). The results of this study yield empirical support for these predictions in the positive interaction effects between knowledge-sharing efforts on the one hand and relationship informality and relationship emotional openness on the other (Models 4–5). The corresponding interaction plots (Figure 2, Panels A–B) and simple slope analyses are particularly insightful because they indicate that the mere presence of extensive knowledge sharing does not significantly contribute to employee creativity when employees cannot rely on informal relationships or do not feel comfortable sharing positive and negative emotions with their organizational peers. Thus, engaging in intensive knowledge exchanges only leads to an enhanced ability to find novel solutions to organizational problems when employees' relationships are marked by high levels of informality and emotional openness.

Second, I predict that employees' perceptions of organizational politics will undermine the ability of their knowledge-sharing efforts to contribute to creative outcomes. When employees believe that organizational decision making is based on destructive political games and self-serving behaviours, their motivation to generate creative solutions to organizational problems is thwarted because of the negative feelings

that such an organizational context generates (Kacmar & Ferris, 1991) and the fear that others in the organization might claim unjustified credit for the allocation of their own personal knowledge to creative activities (De Clercq et al., 2014b). The results offer empirical support for this prediction in the negative interaction effect between knowledge-sharing efforts and perceptions of organizational politics in explaining employee creativity (Model 6). The plot in Figure 2, Panel C, indicates that the usefulness of knowledge-sharing efforts to stimulate employee creativity is diminished when employees believe that they operate in a strongly politicized organizational environment. The associated simple slope analysis indicates that in such environments, the significant effect of knowledge-sharing efforts disappears. Thus, extensive knowledge-sharing efforts only pay off in terms of promoting creativity to the extent that employees believe that the organization does not support behind-the-scenes decision making.

In addition to their individual moderating effects, I have also theorized about the combined moderating effects of relationship quality and perceived organizational politics on the relationship between knowledge-sharing efforts and employee creativity. In particular, the harmful role of perceived organizational politics should be mitigated when employees can rely on peer relationships that are either informal or allow for the free expression of emotions and, *ceteris paribus*, should be invigorated when this is not the case. The significant three-way interaction terms in Models 7–8 provide empirical support for this argument. When relationship informality and relationship emotional openness are low (Figure 3, Panel B and Figure 4, Panel B, respectively), employees feel insulated and the presence of destructive political games is experienced more strongly (Bouckennooghe, 2012), so that they refrain from applying their collective knowledge

bases to creative outcomes. However, an interesting insight that emerges from the patterns in Figure 3, Panel A and Figure 4, Panel A, which reflect the scenarios in which the two aspects of relationship quality are high, is that the positive relationship between knowledge-sharing efforts and employee creativity becomes stronger at higher levels of perceived organizational politics. Although the slope differences in Figure 3, Panel A and Figure 4, Panel A are not significant, these patterns suggest a potentially beneficial role of perceived organizational politics when combined with strong peer relationships. In particular, employees who have access to the relational support and insights of their organizational peers can use a politicized organizational environment to exploit their knowledge bases toward creativity. This argument aligns with previous research on the positive role of politics, such that access to strong peer relationships can help employees effectively navigate the political environment and use it as a tool to proactively apply their collective skill bases toward positive work behaviours (De Clercq et al., 2014b; Frost & Egri, 1991).

Overall, the study's results are significant in that they establish a more complete understanding of how creative behaviours emerge within organizations. In particular, they add to extant creativity literature by specifying the concurrent roles that knowledge-sharing efforts and distinct contextual factors (relationship quality and perceived organizational politics) play in promoting employee creativity, and by revealing the individual *and* combined influences of these contextual factors on the usefulness of extensive knowledge-sharing efforts for spurring creativity.

6.2. Limitations and future research

This study has some limitations, which provide opportunities for further research. First, although the hypotheses are grounded in extant theory, the analyses relies on cross-sectional data, thus suggesting the possibility of reverse causality. It could be that the insights and satisfaction that come with successful creative behaviours fuel employees' energy and motivation to invest in knowledge-sharing activities with their colleagues (Kessel et al., 2012) or develop close, constructive relationships with them (Payne et al., 2011). Future studies could apply longitudinal designs to explicitly examine the causal processes that link employees' knowledge-sharing efforts with their propensity to engage in creativity behaviours, as well as the contextual conditions that influence these processes.

Second, by focusing on the role of contextual factors instead of individual factors in explaining employee creativity, I ignore the possibility that the focal constructs studied herein (knowledge-sharing efforts, relationship quality, and perceived organizational politics) may interact with personal characteristics (Woodman et al., 1993). Similarly, because I focus on three specific contingency factors, I ignore other potential moderators of the relationship between knowledge-sharing efforts and employee creativity. Although relationship emotional openness presents an understudied, and therefore valuable, addition to the conceptualization of relationship quality, further research might also consider more commonly used dimensions, such as trust and goal congruence (De Clercq et al., 2013; Nahapiet & Ghoshal, 1998).

Third, research might consider alternative conceptualizations of organizational politics and examine its potentially beneficial role in stimulating creativity. While the

measure used herein focuses on perceptions of destructive, self-serving behaviours in the organizational environment, further research could measure employees' own political *skills* in advancing their personal agendas (e.g., Ferris, Perrewé, Anthony, & Gilmore, 2000; Perrewé et al., 2000). Political skills might help employees secure limited organizational resources (Treadway, Hochwarter, Ferris, Kacmar, Douglas, Ammeter, et al., 2004), which in turn could support their creative endeavours. Further research might also explore how the usefulness of political skills for spurring creativity depends on employees' access to relevant organizational resources, including knowledge and peer relationships (De Clercq et al., 2014b; Frost & Egri, 1991).

6.3. Practical implications

Because creative behaviours can help organizations enhance the learning and development of their employees and sustain a competitive advantage, this investigation of factors that facilitate or inhibit employee creativity also has significant practical relevance for organizations in general and the healthcare industry in particular. The positive role of extensive knowledge-sharing efforts in promoting creativity suggests that organizations can benefit greatly from developing and valuing their employees' skills and expertise, particularly by acknowledging the need to unlock these features through efficient knowledge-sharing routines. Such routines can facilitate the integration of knowledge pieces that are dispersed across the organization, generating novel insights into how organizational problems can be resolved. In some organizations, such as those in the healthcare industry, extensive knowledge sharing can be challenging because of the prevalence of professional identification over organizational identification (Ramanujam & Rousseau, 2006) and the difficulty of sharing personal insights across strict

hierarchical lines (Tucker & Edmondson, 2003). Possible interventions to spur knowledge exchanges, even in the face of these challenges, include the implementation of cross-functional teams and task forces (Nembhard & Edmondson, 2006), as well as training programs that focus not only on the development of technical and soft skills but also on the effective integration of these skills (Kahn, 1996). In addition, organizations with creative aspirations should focus on hiring employees with strong learning and knowledge-sharing tendencies in their recruitment efforts.

This study also suggests that organizations that strive to encourage creativity within their ranks should combine knowledge-sharing routines with an organizational culture in which employees across different ranks have the opportunity to interact informally with one another and feel comfortable expressing a broad range of emotions. For example, healthcare organizations could organize events, both inside and outside the workplace, that give employees in different positions in the medical hierarchy a chance to get to know one another on a personal level and become comfortable expressing their personal feelings about the current organizational situation, as well as how this situation might be improved with creative ideas. These features increase the likelihood that the knowledge that is shared will have the necessary quality to generate novel ideas for organizational improvement (Nahapiet & Ghoshal, 1998; Zhou & Shalley, 2003).

Moreover, organizations should be aware that such knowledge-sharing routines have limited value for the generation of creative outcomes when employees experience significant uncertainty due to the perception of destructive political games, as might be the case, for example, in healthcare organizations in which decision-making processes are driven by strong power and status differentials within the medical hierarchy (Nembhard

& Edmonson, 2006). Because strongly politicized environments add to employees' anxiety and undermine their motivation (Kacmar & Ferris, 1991), the willingness to apply personal insights, gained from knowledge-sharing efforts, to productive work behaviors is hampered (Chang et al., 2009). Therefore, when organizations discourage self-serving behaviors within their ranks and take corrective actions against its presence, employees should feel safer leveraging their joint knowledge and developing creative solutions to organizational problems. For example, healthcare organizations that want to find novel ways to improve the quality of patient care should be transparent in terms how they allocate company resources to different medical units. Guidelines that ensure clarity and fairness in resource allocation can be instrumental for ensuring that employees go out of their way to combine their respective experiences into creative outcomes that benefit the entire organization.

6.4. Conclusion

With this thesis, I contribute to creativity literature by investigating the unexplored question of how the concurrent interplay between extensive knowledge-sharing efforts and two sets of contextual factors (relationship quality and the nature of organizational decision making) inform the likelihood of employees developing novel solutions to organizational problems. I have considered the moderating effects of two dimensions of relationship quality—informality and the previously understudied dimension of emotional openness—and beliefs about destructive political games on the relationship between knowledge-sharing efforts and employee creativity.

The results indicate that when employees maintain close, informal relationships with their peers and are able to freely share positive and negative emotions with them fully, their

collective knowledge bases are more likely to be leveraged and converted into creative solutions. Conversely, when employees perceive that organizational decision making is marked by self-serving behaviours, they are likely to protect their knowledge bases and refrain from sharing high-quality insights during their knowledge-sharing efforts, thus inhibiting creative outcomes. The study also indicates that when employees enjoy higher levels of relationship quality with colleagues, they perceive organizational politics as less threatening, such that the harmful role of destructive political games is diminished. I hope that this study will spur further investigation into how different contextual factors can influence employees' propensity to engage in creative behaviour.

7. References

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Table 1: Constructs and measurement items

	Factor loading	t-value
Creativity ($\alpha = .925$; CR = .925; AVE = .805)		
I often create new ideas for improvement.	0.926 ^a	--
I often generate original solutions to problems.	0.889	20.053
I often search out new working methods, techniques, or instruments.	0.876	19.459
Knowledge-sharing efforts ($\alpha = .913$; CR = .915; AVE = .729)		
There is a high level of knowledge sharing between my colleagues and myself.	0.789	16.184
My colleagues and I regularly communicate with each other.	0.794	16.408
My colleagues and I provide each other with a lot of feedback.	0.89	20.988
There is a lot of two-way communication between my colleagues and myself.	0.933 ^a	--
Relationship informality ($\alpha = .786$; CR = .811; AVE = .552)		
My colleagues and I spend significant time together in social situations.	0.870	3.725
My colleagues and I maintain close social relationships with one another.	0.956	3.734
My colleagues and I know each other on a personal level.	0.690	3.635
My relationship with colleagues is very informal.	0.251 ^a	--
Relationship emotional openness ($\alpha = .900$; CR = .903; AVE = .757)		
I can fully express my emotions to my colleagues.	0.841 ^a	--
When my colleagues and I interact with each other, we express both positive and negative feelings to each other.	0.798	14.584
When I talk about my emotions with my colleagues, I feel like it is constructive.	0.962	18.259
Perceived organizational politics ($\alpha = .925$; CR = .925; AVE = .756)		
People spend too much time sucking up to those who can help them.	0.888	17.749
People are working behind the scenes to ensure that they get their piece of the pie.	0.861 ^a	--
There is a lot of self-serving behaviour going on in my department.	0.864	16.888
People do what's best for them, not what's best for the department.	0.864	16.904

^a Initial loading was fixed to 1 to set the scale of the construct.

Notes: α = Cronbach's alpha, CR = construct reliability, AVE = average variance extracted.

Table 2: Correlations and descriptive statistics

	1	2	3	4	5	6	7	8	9
1. Creativity									
2. Knowledge-sharing efforts	.123								
3. Relationship informality	.052	.376**							
4. Relationship emotional openness	.233**	.526**	.383**						
5. Perceived organizational politics	-.119	-.458**	-.102	-.405**					
6. Gender (1 = female)	-.034	-.040	-.010	.038	-.011				
7. Age	.088	-.061	-.126	-.032	.062	.169*			
8. Education	.118	-.034	-.069	-.071	-.031	-.161*	-.186**		
9. Organizational tenure	.106	-.006	-.072	-.046	-.058	.177**	.591**	-.298**	
Mean	5.164	5.696	3.742	4.812	3.025	.843	46.909	2.391	14.303
Standard deviation	1.281	1.146	1.283	1.398	1.613	.365	10.851	.795	11.555

** $p < .01$; * $p < .05$.

Notes: N = 226.

Table 3: Regression results (dependent variable: creativity)

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Gender	-.241	-.207	-.256	-.288	-.289	-.298	-.297	-.268
Age	.011	.012	.010	.010	.009	.008	.008	.009
Education	.258*	.268*	.302*	.287*	.300*	.289*	.286*	.273*
Organizational tenure	.009	.009	.012	.010	.012	.012	.009	.008
H ₁ : Knowledge-sharing efforts		.151 ⁺	.049	.154	.112	.155	.195 ⁺	.191 ⁺
Relationship informality			-.038	-.078	-.046	-.049	.065	-.029
Relationship emotional openness			.231**	.221**	.235**	.237**	.204*	.275***
Perceived organizational politics			.043	.046	.036	.050	-.034	-.026
H _{2a} : Knowledge-sharing efforts × Relationship informality				.167*			.154 ⁺	
H _{2b} : Knowledge-sharing efforts × Relationship emotional openness					.102*			-.004
H ₃ : Knowledge-sharing efforts × Perceived organizational politics						-.109*	-.054	-.064
Perceived organizational politics × Relationship informality							.073	
Perceived organizational politics × Relationship emotional openness								.047
H _{4a} : Knowledge-sharing efforts × Perceived organizational politics × Relationship informality							.099**	
H _{4b} : Knowledge-sharing efforts × Perceived organizational politics × Relationship emotional openness								.078**
R ²	.041	.058	.095	.122	.117	.121	.181	.171
ΔR ²		.017 ⁺	.037 ⁺	.027*	.022*	.026*	.060**	.050*

*** $p < .001$; ** $p < .01$; * $p < .05$; ⁺ $p < .10$.

Notes: N = 226; unstandardized coefficients (two-tailed p -values).

Figure 1: Conceptual model

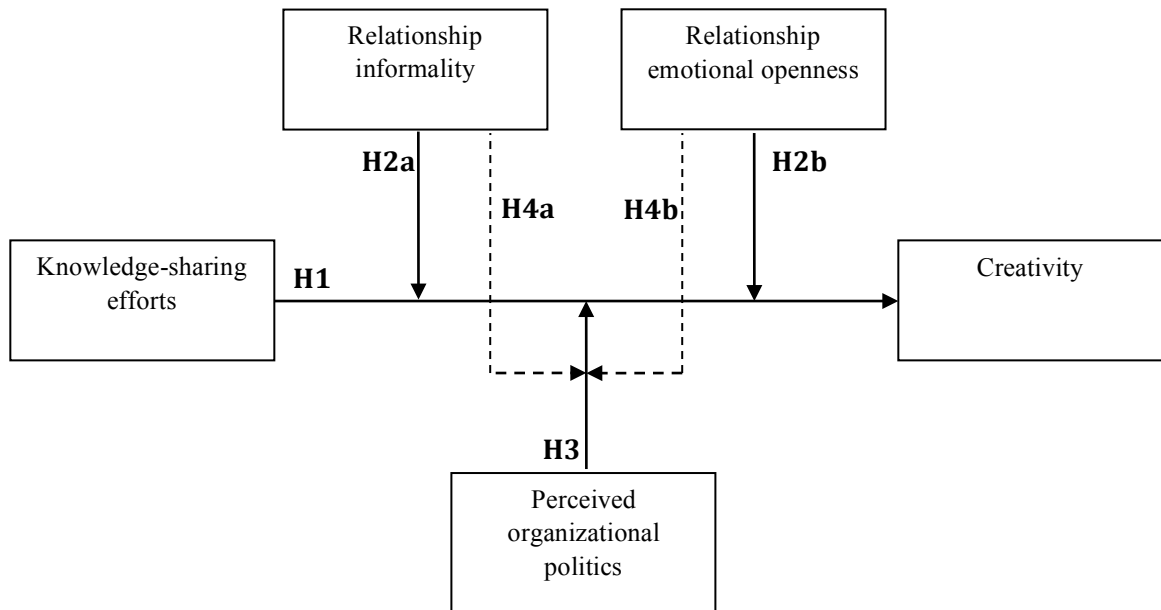
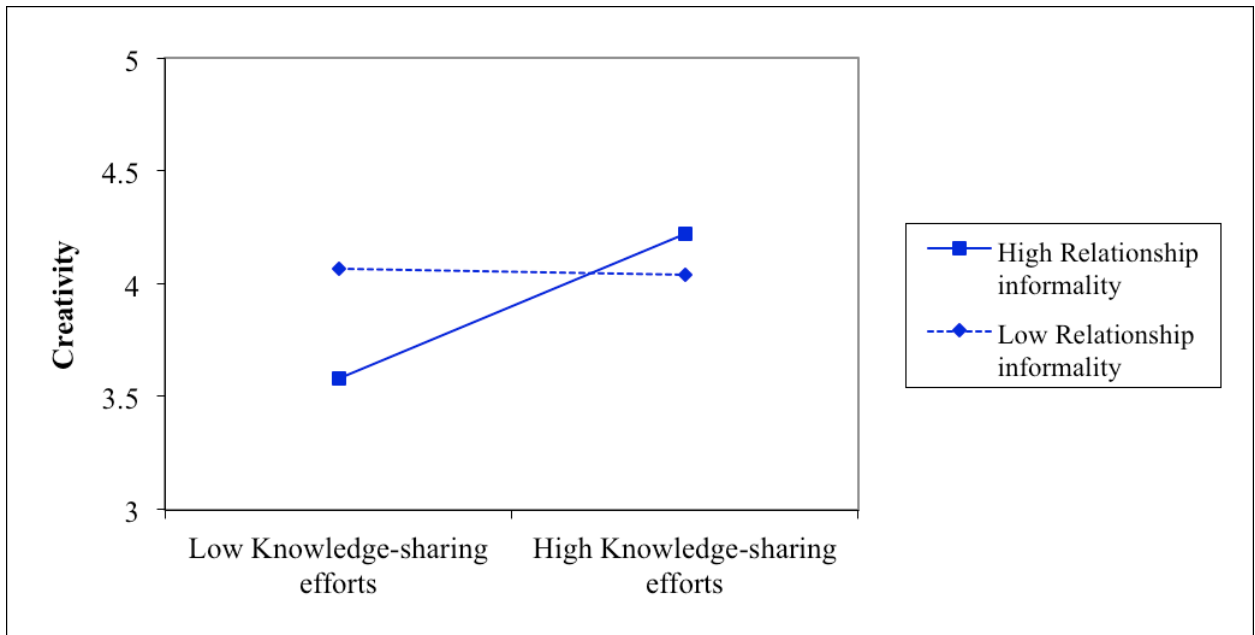
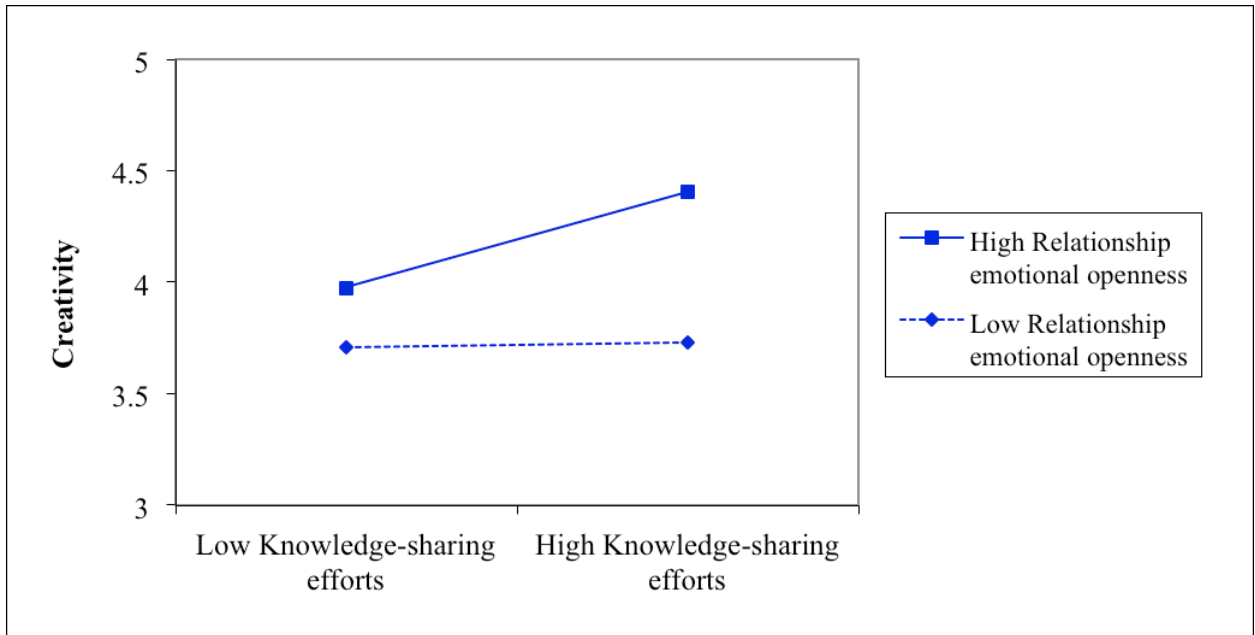


Figure 2: Two-way interaction effects

A. Relationship informality on the knowledge-sharing efforts–creativity relationship



B. Relationship emotional openness on the knowledge-sharing efforts–creativity relationship



C. Perceived organizational politics on the knowledge-sharing efforts–creativity relationship

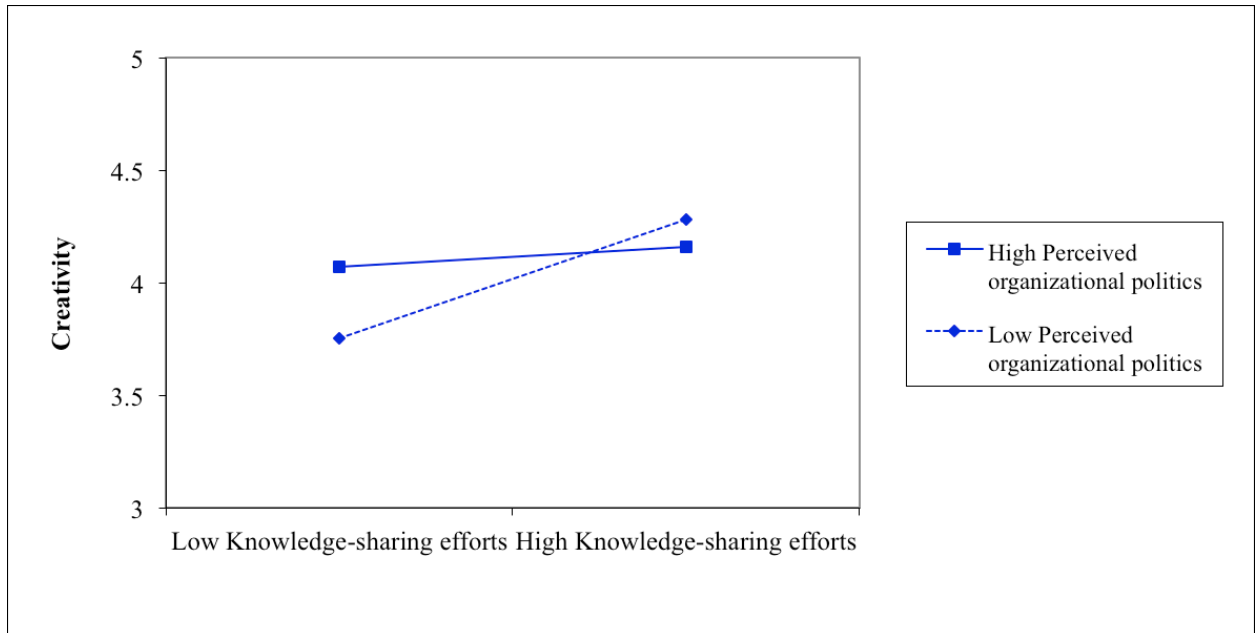
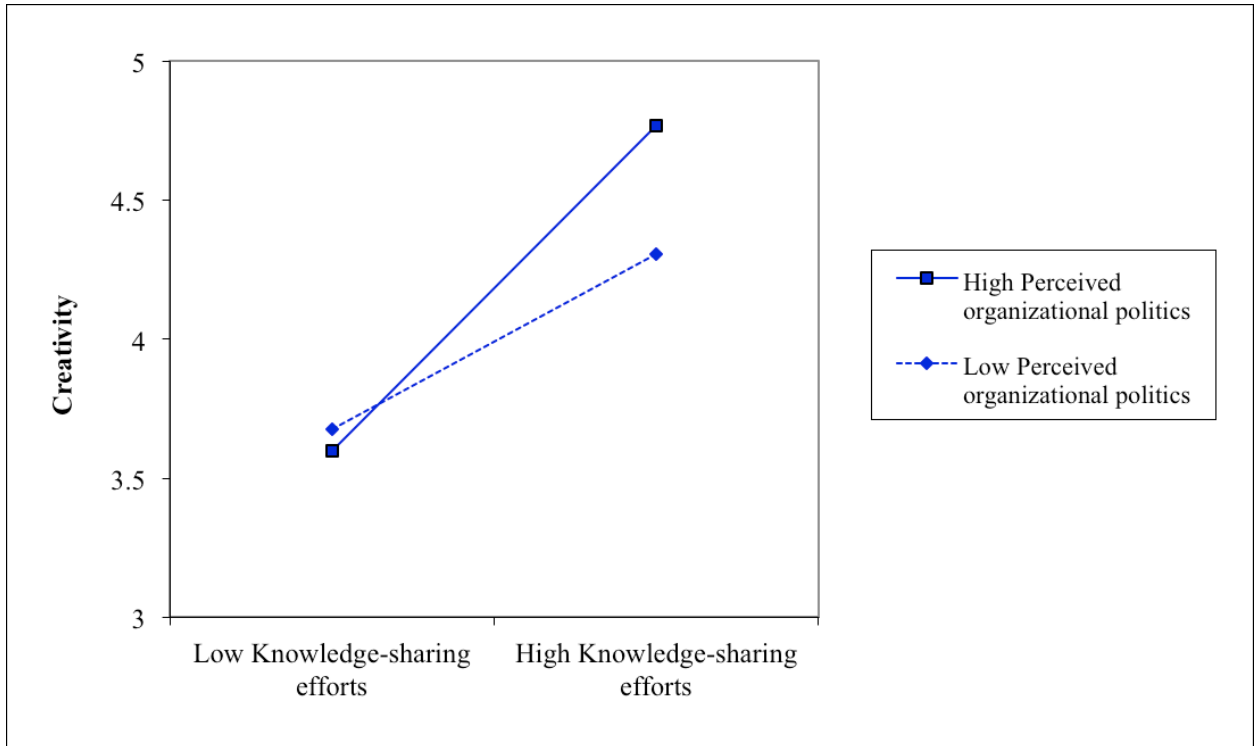


Figure 3: Three-way interaction effects (with relationship informality)

A. Perceived organizational politics on the knowledge-sharing efforts–creativity relationship when relationship informality is high



B. Perceived organizational politics on the knowledge-sharing efforts–creativity relationship when relationship informality is low

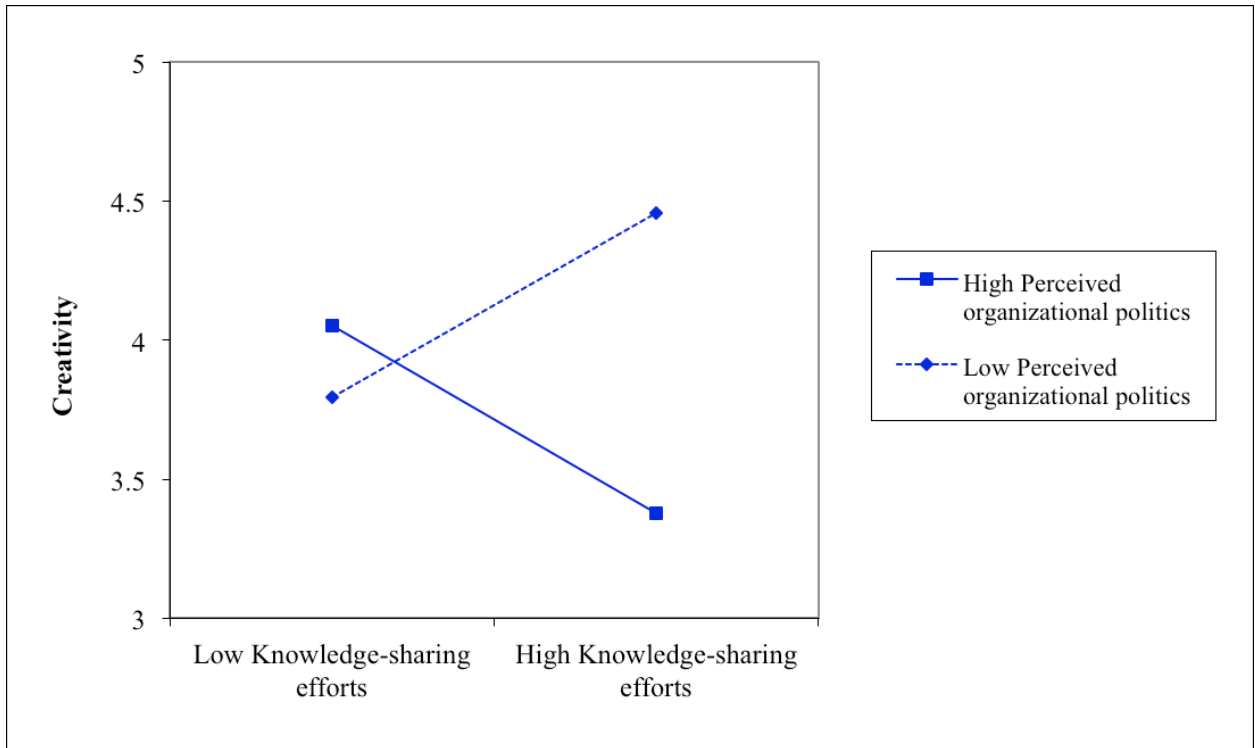
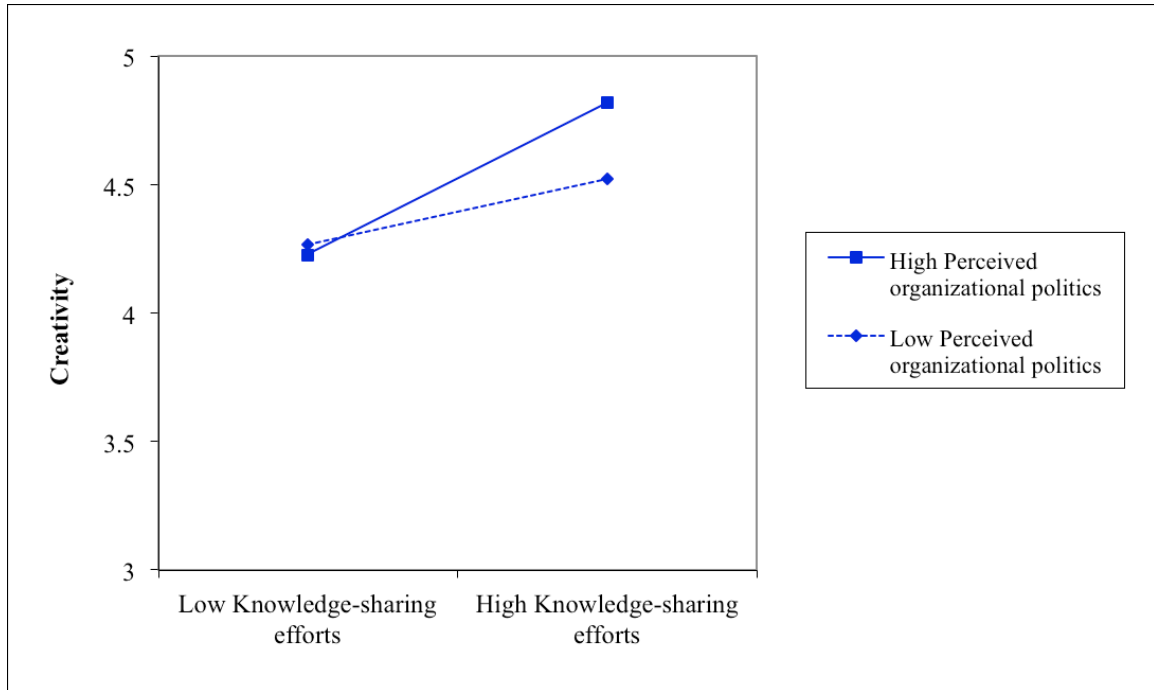


Figure 4: Three-way interaction effects (with relationship emotional openness)

A. Perceived organizational politics on the knowledge-sharing efforts–creativity relationship when relationship emotional openness is high



B. Perceived organizational politics on the knowledge-sharing efforts–creativity relationship when relationship emotional openness is low

